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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
TRAN, HENRY N	

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/606,846	KONG, NAM YOUNG	
	Examiner	Art Unit	
	Henry N. Tran	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The Reply received February 20, 2006 has been fully considered; and this Office action is in response thereto.

Response to Arguments

1. Applicant's arguments provided in pages 6-7 of the Reply filed 2/20/06 have been fully considered but they are not persuasive because of the following reasons:

(a) Regarding claim 1, applicant argued that: the function of the analog switching matrix (element 104) of Dotson is "to automatically determine the touch screen type to which the touch screen interface circuit (100) is connected"; that "detecting the interface integrated circuit" is patentably distinct from "sensing the impedance characteristics of the touch screen."; and therefore, Chan and Dotson, either alone or in combination, fails to teach the claimed limitation: "a sensor for automatically detecting the interface integrated circuit connected to the computer system". The examiner respectfully disagree because: (i) firstly, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986); (ii) Secondly, Chen teaches the use of a sensing selector (300) for selecting the two interfaces (295 or 285) that are connected to the computer system (185); Dotson teaches that the analog switching matrix (104) integrated with the touch screen interface circuit (100) is used to automatically detecting different interfaces, which are different types of touch screens; and Chen in view of Dotson; and accordingly, Chen in view of Dotson would

provide the claimed limitation: "a sensor for automatically detecting the interface integrated circuit connected to the computer system"; and Lastly, the examiner does not rely upon the "sensing the impedance characteristics of the touch screen." as taught by Dotson for the rejection of the claimed invention.

(b) Regarding claim 10, applicant argued that the independent claim 10, requires: "sensing an interface integrated circuit connected to a computer system among at least two interface integrated circuits"; and Chan and Dotson, alone or in combination, fails to teach or suggest that feature. The examiner respectfully disagree because: (i) Chen teaches the use of a sensing selector (300) for selecting the two interfaces (295 or 285) that are connected to the computer system (185); (ii) Dotson teaches that the analog switching matrix (104) integrated with the touch screen interface circuit (100) is used to automatically detecting different interfaces; and (iii) accordingly, Chen in view of Dotson would provide the claimed limitation: "sensing an interface integrated circuit connected to a computer system among at least two interface integrated circuits".

Therefore, claims 1-15 stand rejected.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al (U.S. Patent No. 5,995,084, hereinafter "Chan") in view of Dotson et al (U.S. Patent No. 6,611,257, hereinafter "Dotson").

4. Re claim 1, Chan, Figs. 3A and 3B, teaches a driving apparatus of a touch panel, comprising: a touch panel (110) for generating a coordinate signal according to a position of a contact point, col. 8, lines 36-65; two interface circuits: a touch pad computer interface (295) and a mouse protocol interface (285) provided in the touchpad computer interface (180) and are connected to the touch panel; a computer system (185) driving the touch panel and connected to any one of the two interfaces; a sensor (a protocol selector 300) for detecting and/ or selecting the interface that is connected to the computer system, see col. 11, lines 49-64; and a controller (100) for converting the coordinate signal in accordance with the interface detected at the sensor and transmitting the converted coordinate signal to the computer system (a touch pad pen-input /mouse controller 100 has a touchpad driver 120 for driving the touch panel 110, wherein the ADC is used to convert coordinate signal voltages into digital codes 135 for transmitting to the computer system 185 based on the selected interface, see Fig. 3A).

However, Chan does not expressly teach: "a sensor for automatically detecting the interface integrated circuit connected to the computer system".

Dotson teaches a driving apparatus of a touch panel comprising a touch interface controller (100) having a sensor (104) for automatically detecting the interface integrated circuits connected to the computer system" (Dotson teaches that the touch interface controller (100) having an analog switch matrix (104) for automatically determine the touch screen type connected to a computer); see Figs. 2 and 3; col. 5, lines 25-61; and col. 6, lines 54-64.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the sensor (104) integrated in the touch interface controller (100) as taught by Dotson for the selector sensor 300 in the Chan touchpad interface controller (180) because this would provide the enhanced functionality of a touchpad computer interface, which would improve the versatility of a touch system that is not only capable of providing pen or mouse input, but also able to distinguish and effectively use different types of touch panels or touch screens that is being automatically detected, see Dotson, abstract, and col. 6, lines 55-60. By this rational, claim 1 is rejected.

5. Re claim 2, Chan further teaches that interface circuits (a touchpad protocol 295 and a mouse protocol 285) and the sensor (300) is provided in the touchpad control interface (180), see Fig. 3B, which is integrated with the controller 100 (a touchpad pen-input controller).

6. Re claim 3, Chan further teaches the controller 100 includes: an analog-to-digital converter ADC 130 for converting an coordinate signal of analog input (voltages 115) from the touch panel into a coordinate signal of digital, see col. 8, lines 58-65; a microcomputer (the computer system 185) for converting the digital coordinate signal into a coordinate value in accordance with the interface integrated circuit sensed at the sensor; and a selector (300) for selecting the interface integrated circuit sensed at the sensor among the two interface integrated circuits; see Figs. 3A and 3B.

7. Re claim 4, Chan, Fig. 3B, discloses that the sensor (300) is integrated with the microcomputer (the computer system 185).

8. Re claim 5, Dotson further teaches the use of receiving connectors and transmitting connectors 73 (Dotson teaches the use of one or more universal asynchronous receiver-

transmitters (UARTs) 73 for interfacing from the touch screen interface to the computer, see Fig. 2, which is read on the claimed two transmitting connectors and two receiving connectors used in the interface circuits.

9. Re claim 6, Dotson further teaches that the interface integrated circuits provided in the touch screen interface 100 are connected to the computer system using a serial communication (a serial interface 74 and a serial port), see Fig. 2.

10. Re claims 7-9, Chan further teaches that the sensor 300 senses the touchpad interface 295 and the mouse interface 285, which are connected to the computer system 185 when the computer system sends a sense control signal to the sensor 300 (a select command) to the touchpad computer interface, see col. 11, lines 49-64. Dotson further teaches the use a USB communication (see Fig. 2, USB 81).

11. Re claims 10-15, which are method claims corresponding to the apparatus claims 1, 3, and 6-9, and are rejected on the same basis set forth in claims 1, 3 and 6-9 discussed above

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry N. Tran whose telephone number is 571-272-7760. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Henry N. Tran

Henry N Tran
Primary Examiner
Art Unit 2629

HT
4/21/06